

AU 332 ARTIFICIAL INTELLIGENCE: PRINCIPLES AND TECHNIQUES

By: Guowei Deng

Instructor: Yue Gao

September 15, 2018

I. QUESTION 1

The question 1 is quite simple. Just change the return value to “a+b”.

II. QUESTION 2

To solve the question 2, we need find the function *buyLotsOfFruit*. I use a for loop to get the information in *orderList* and calculate the totalCost using the code

```
1 for (fruit,weight) in orderList:
    totalCost += weight * fruitPrices[fruit]
```

III. QUESTION 3

To solve the question 3, first we need to understand the code in another document *shop.py*. In *shop.py*, a class *FruitShop* is defined. Some related functions are defined as well. Among these functions, the function *getPriceOfOrder* is useful for this function.

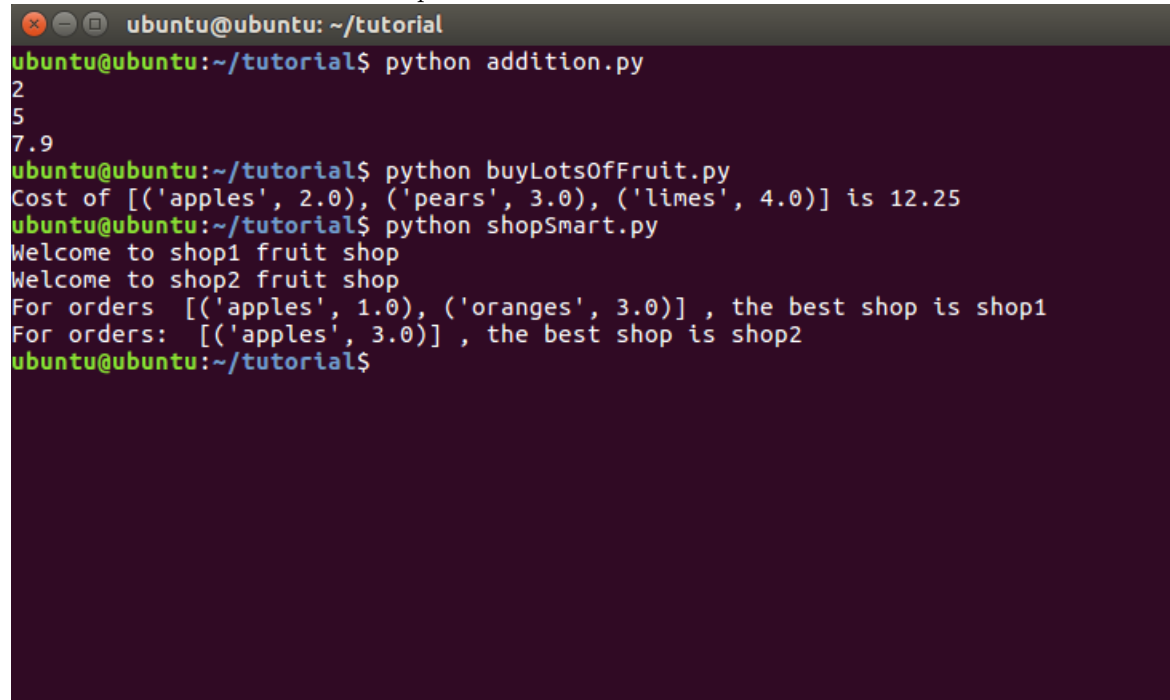
So function *shopSmart* in *shopSmart.py* should be implemented as follows.

```
def shopSmart(orderList, fruitShops):
    """
        orderList: List of (fruit, numPound) tuples
        fruitShops: List of FruitShops
    """
    """*** YOUR CODE HERE ***"""
    totalCost1 = 0.0
    totalCost2 = 0.0
    totalCost1 += shops[0].getPriceOfOrder(orderList)
    totalCost2 += shops[1].getPriceOfOrder(orderList)
    return shops[0] if totalCost1 < totalCost2 else shops[1]
```

First we define 2 variables to process the total cost in different shops. And then find the lowest value. After that, the function return the corresponding shop.

IV. SCREENSHOT

Here is the screenshot for these questions.



```
ubuntu@ubuntu: ~/tutorial
ubuntu@ubuntu:~/tutorial$ python addition.py
2
5
7.9
ubuntu@ubuntu:~/tutorial$ python buyLotsOfFruit.py
Cost of [('apples', 2.0), ('pears', 3.0), ('limes', 4.0)] is 12.25
ubuntu@ubuntu:~/tutorial$ python shopSmart.py
Welcome to shop1 fruit shop
Welcome to shop2 fruit shop
For orders  [('apples', 1.0), ('oranges', 3.0)] , the best shop is shop1
For orders:  [('apples', 3.0)] , the best shop is shop2
ubuntu@ubuntu:~/tutorial$
```